

541115

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 July 2004 (22.07.2004)

PCT

(10) International Publication Number  
WO 2004/060145 A2

- (51) International Patent Classification<sup>7</sup>: **A61B**
- (21) International Application Number:  
PCT/US2003/041284
- (22) International Filing Date:  
23 December 2003 (23.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/437,369 31 December 2002 (31.12.2002) US
- (71) Applicant (*for all designated States except US*): **BAYLOR COLLEGE OF MEDICINE [US/US]**; One Baylor Plaza, Houston, TX 77030 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **ZHANG, Jingwu** [BE/US]; 2219 Parkview Lane, Missouri City, TX 77459 (US).
- (74) Agents: **CLOUGH, David, W. et al.**; Howrey Simon Arnold & White, LLP, Box 34, 1299 Pennsylvania Avenue, N.W., Washington, D.C. 20004-2402 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**  
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: ISOLATION AND IDENTIFICATION OF CROSS-REACTIVE T CELLS

(57) Abstract: Cross-reactive T cells recognizing both MBP<sub>93-105</sub> and HHV-6<sub>1-13</sub> peptides represent a significant subset of T cells with some degree of TCR degeneracy. It appears that the recognition of the cross-reactive T cells has a less stringent requirement for the flanking residues of the two peptides. In contrast, these flanking residues are critical for the T cell recognition of mono-specific T cells. The association between HHV-6 and autoreactive immune responses to MBP indicates that cross-reactive T cells, peptides from the V-D-J region of the T cell receptor from autoreactive T cells, and antiviral agents may prevent or treat MS.



WO 2004/060145 A2